



Atty. Dkt. No. 016782-0365

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Patrick LENOIR

Title: INFRARED DRIER INSTALLATION FOR PASSING WEB

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Examiner: Stephen Michael GRAVINI

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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

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Commissioner for Patents  
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Sir:

In accordance with the Pre-Appeal Brief Conference Pilot Program, announced July 11, 2005, this Pre-Appeal Brief Request is being filed together with a Notice of Appeal.

**REMARKS**

Rejections under 35 U.S.C. § 103

Claims 1-8, 11-13, 15, 16, and 21 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,511,015 to Heikkilä et al. (hereafter “Heikkilä”) in view of U.S. Patent No. 2,174,228 to Smith, Jr. (hereafter “Smith”). This rejection is respectfully traversed.

Heikkilä discloses an asymmetric blow suction module 12 mounted above a web 10, which includes a blow nozzle unit 14 having a first discharge suction unit 18 on a front side

16 and a second discharge suction unit 22 on a back side 20. See Heikkilä at col. 3, lines 50-56. The blow suction module 12 is located between two gas infra modules 24, 26 and the blow nozzle unit 14 has a bottom part 28 with two nozzles or nozzle gaps 30, 32. See Heikkilä at col. 3, lines 57-62, and Figure 1. The bottom part of air discharge units include bottom plates 40, 42 that are bent downwards into a V-shape and contain suction openings 38. See Heikkilä at col. 4, lines 19-22.

However, Heikkilä does not disclose a non-contact infrared drier installation for a passing web comprising, among other things, gas-heated infrared radiant elements arranged next to one another so as to form a unit, wherein said infrared drier installation comprises a recycling device and a device preventing suction of cold air between two adjacent rows of radiant elements in said unit, wherein the device preventing suction of cold air between two adjacent rows of radiant elements fills a space between the two adjacent rows of radiant elements in said unit such that a device preventing suction of cold air is located between each and every element in said unit, as recited in claim 1 and as noted on page 4 of the Office Action mailed October 26, 2009. Claims 2-8, 11-13, 15, and 16 depend from claim 1.

In particular, Heikkilä does not disclose a device preventing suction of cold air between two adjacent rows of radiant elements fills a space between the two adjacent rows of radiant elements in said unit such that a device preventing suction of cold air is located between each and every element in said unit, as recited in claim 1.

Smith discloses a paper drying system that includes drying rolls 10 heated with steam to dry a paper sheet 11 and arcuate radiators 12 spaced in relation to the drying rolls 10 and the sheet 11. See Smith at col. 4, lines 49-73. Smith discloses that spaces 13 are provided between the radiators 12 so that air can enter through the spaces 13 between the radiators 12 via convection and a steam-air mixture can evacuate by convection through ducts 14. See Smith at col. 4, line 73, to col. 5, line 8.

The Office argues on pages 4-5 of the Office Action that it would have been obvious to one of ordinary skill in the art to modify the device of Heikkilä by the teachings of Smith to provide a device preventing suction of cold air between two adjacent rows of radiant elements

in said unit, wherein the device preventing suction of cold air between two adjacent rows of radiant elements fills a space between the two adjacent rows of radiant elements in said unit such that a device preventing suction of cold air is located between each and every element in said unit, as recited in claim 1. In particular, the Office argues on pages 4-5 of the Office Action that the space 13 of Smith serves as a device preventing suction of cold air between two adjacent rows of radiant elements in said unit, wherein the device preventing suction of cold air between two adjacent rows of radiant elements fills a space between the two adjacent rows of radiant elements in said unit such that a device preventing suction of cold air is located between each and every element in said unit, as recited in claim 1. Applicant respectfully disagrees.

The space 13 of Smith is not a device preventing suction of cold air between two adjacent rows of radiant elements in said unit, wherein the device preventing suction of cold air between two adjacent rows of radiant elements fills a space between the two adjacent rows of radiant elements in said unit such that a device preventing suction of cold air is located between each and every element in said unit, as recited in claim 1. The space 13 is an open space or a gap between the radiators 12 of Smith and thus does not fill a space between two adjacent rows of radiant elements, as recited in claim 1. In fact, Smith teaches that the space 13 is open and does not fill the space between the radiators 12 so that air can enter through the spaces 13 between the radiators 12 via convection and a steam-air mixture can evacuate by convection through ducts 14. See Smith at col. 4, line 73, to col. 5, line 8. Thus, Smith actually teaches the opposite of filling a space between adjacent rows of radiant elements, as recited in claim 1, and Smith fails to remedy the deficiencies of Heikkilä.

The Office also argues in the Advisory Action mailed February 17, 2010 that a device preventing suction of cold air between two adjacent rows of radiant elements is provided by convective and radiative heating in the device of Heikkilä. More particularly, the Office argues that convective and radiative heating would allow heat to transfer such that cold air suction would be prevented between adjacent rows, such as by hot air transferring between rows of radiant elements. However, the Office does not explain how such heat transfer acts to prevent suction of cold air between adjacent rows of radiant elements, other than through its presence, or how such heat transfer would not also result in pressure differences and

suction of air due to temperature and/or pressure differences. Nor does the Office consider whether such a transfer of hot air would draw cold air into a gap, such as in an eductor device. The Office also argues in the Advisory Action that the prevention device would fill the space between adjacent rows of radiant elements but does not explain how. Applicant respectfully submits that heat transfer, such as from convective and radiative heating, does not fill a space, as recited in claim 1.

For at least the reasons discussed above, the combination of Heikkilä and Smith does not render claims 1-8, 11-13, 15, and 16 to be unpatentable because the combination of Heikkilä and Smith does not disclose all of the features of claim 1. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 9, 10, and 14 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Heikkilä and Smith. This rejection is respectfully traversed. Claims 9, 10, and 14 depend from claim 1. Heikkilä and Smith do not render claims 9, 10, and 14 to be unpatentable because Heikkilä and Smith do not disclose or suggest all of the features of claim 1. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 17-20 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Heikkilä and Smith in view of U.S. Patent No. 6,665,950 to Riepe et al. (hereafter “Riepe”). This rejection is respectfully traversed. Riepe fails to remedy the deficiencies of Heikkilä and Smith discussed above in regard to independent claim 1, from which claims 17-20 depend. Reconsideration and withdrawal of this rejection is respectfully requested.

## **CONCLUSION**

For at least the reasons discussed above, a clear error has been made in the alleged rejections because the combination of Heikkilä and Smith does not disclose or suggest all of the features of claim 1. The additional references relied upon by the Office in the rejections under 35 U.S.C. § 103 fail to remedy the deficiencies of Heikkilä and Smith. Thus, claims 1-21 are patentable.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance.

Respectfully submitted,

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